IN THE CLAIMS:

Please amend the current claims as indicated by underlining and strikethrough or double brackets below. For claims not marked as "Currently Amended" in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a clerical or typographical error.

1-3 (Canceled).

4. (Previously Presented) The audio processor of Claim 35, wherein:

the one or more first combiners are further operable to produce the first output signals using first unfiltered input signals; and

the one or more second combiners are further operable to produce the second output signals using second unfiltered input signals.

5. (Previously Presented) The audio processor of Claim 4, further comprising an attenuator operable to attenuate third unfiltered input signals;

wherein the one or more first combiners are further operable to produce the first output signals using the attenuated third input signals; and

wherein the one or more second combiners are further operable to produce the second output signals using the attenuated third input signals.

6. (Previously Presented) The audio processor of Claim 35, further comprising a plurality of additional first filters each operable to filter one of first, second, and third additional input signals;

wherein the one or more first combiners are further operable to produce the first output signals using the filtered first additional input signals and the filtered third additional input signals; and

wherein the one or more second combiners are further operable to produce the second output signals using the filtered second additional input signals and the filtered third additional input signals.

7-12 (Cancelled)

13. (Previously Presented) The device of Claim 39, further comprising an attenuator operable to attenuate additional input signals;

wherein the one or more first combiners are further operable to produce the first output signals using the attenuated input signals; and

wherein the one or more second combiners are further operable to produce the second output signals using the attenuated input signals.

14. (Previously Presented) The device of Claim 39, wherein:

each forward crossover path comprises a first delay line and a second filter; and

each feedback crossover path comprises a second delay line and a third filter.

15. (Previously Presented) The device of Claim 39, wherein the audio processor is operable to virtualize five speakers using two physical speakers.

16. (Previously Presented) The device of Claim 39, wherein the audio source comprises at least one of a television tunes, a radio tuner, a CD reader, and a DVD reader.

17. (Previously Presented) The device of Claim 39, wherein the audio source comprises an audio/video source operable to provide both audio and video information; and

further comprising a video processor operable to process the video information.

18. – 29. (Canceled).

30. (Previously Presented) The method of Claim 42, wherein the first and second output signals emulate the effects of multiple virtual speakers on the ears of the listener.

31. (Previously Presented) The method of Claim 42, wherein the first and second output signals emulate the effects of multiple virtual speakers at any locations in a space around the listener.

32. (Canceled).

33. (Currently Amended) An audio processor, comprising:

a virtualizer configured to process audio information to virtualize at least one speaker such that, from a listener's perspective, sounds appear to come from at least one direction where a physical speaker is not present, the virtualizer comprising:

a first feedback crossover path configured to receive, delay, and filter signals output from the virtualizer; and

a forward crossover path configured to receive an output of a first filter, to filter the received signal with a filter approximating filtering required to provide an optimal inter-time difference to virtualize the at least one speaker and to delay an output of the filter to compensate for a difference between a delay introduced by the filter and the optimal inter-time difference, wherein an output of the first feedback crossover path and an output of the forward crossover path are combined to produce at least one output signal from the virtualizer; and

a controller configured to cause the virtualizer to virtualize the at least one speaker at any location in a space around the listener.

34. (Previously Presented) The audio processor of Claim 33, wherein the signals output from the virtualizer comprise first output signals and second output signals, and wherein the virtualizer comprises:

the first filter configured to filter input signals comprising the audio information;

a first combiner configured to produce first output signals for a first physical speaker using the output of the first filter;

a second combiner configured to produce second output signals for a second physical speaker using the output of the forward crossover path and the output of the first feedback crossover path; and

a second feedback crossover path configured to receive, delay, and filter the second output signals, the first combiner further configured to produce the first output signals using an output of the second feedback crossover path.

35. (Currently Amended) An audio processor, comprising:

a virtualizer configured to process audio information to virtualize at least one speaker such that, from a listener's perspective, sounds appear to come from at least one direction where a physical speaker is not present, the virtualizer comprising:

a first feedback crossover path configured to receive, delay, and filter signals output from the virtualizer; and

a forward crossover path configured to receive, delay, and filter an output of a first filter, wherein an output of the first feedback crossover path and an output of the forward crossover path are combined to produce at least one output signal from the virtualizer;

a plurality of first filters configured to filter a plurality of input signals, the input signals comprising at least a portion of the audio information;

a plurality of forward crossover paths each configured to receive, delay, and filter an output from one of the first filters;

one or more first combiners configured to produce first output signals for a first physical speaker using an output from at least one of the forward crossover paths and the output from at least one of the first filters;

one or more second combiners configured to produce second output signals for a second physical speaker using an output from at least one other of the forward crossover paths and the output from at least one other of the first filters;

a first feedback crossover path configured to receive, delay, and filter the first output signals, the one or more second combiners further operable to produce the second output signals using an output from the first feedback crossover path; and

a second feedback crossover path configured to receive, delay, and filter the second output signals, the one or more first combiners further configured to produce the first output signals using an output from the second feedback crossover path; and

a controller configured to cause the virtualizer to virtualize the at least one speaker at any location in a space around the listener.

36. (Previously Presented) The audio processor of Claim 33, wherein:

the virtualizer comprises at least one first filter, one or more forward crossover paths each comprising a first delay line and a second filter, and two feedback crossover paths each comprising a second delay line and a third filter;

at least one first filter has a frequency response P of $|P| = \left|\frac{H_i(\phi)}{H_i(\theta)}\right|$,

at least one second filter has a frequency response F of $|F| = \left|\frac{H_c(\phi)}{H_i(\phi)}\right|$,

at least one third filter has a frequency response F_T of $|F_T| = \left|\frac{H_c(\theta)}{H_i(\theta)}\right|$,

at least one first delay line provides a delay D of $D = t(\phi) - t(F)$, and

at least one second delay line provides a delay D_T of $D_T = t(\theta) - t(F_T)$,

wherein θ represents an angle associated with at least one physical speaker, φ represents an angle associated with at least one virtualized speaker, H_i represents a transfer function associated with one of the listener's ears, H_c represents a transfer function associated with another of the listener's ears, $t(\varphi)$ represents an inter-time difference associated with the at least one virtualized speaker, $t(\theta)$ represents an inter-time difference associated with the at least one physical speaker, $t(F)$ represents a delay associated with at least one second filter, and $t(F_T)$ represents a delay associated with at least one third filter.

37. (Previously Presented) The audio processor of Claim 33, wherein:

the virtualizer comprises two first filters, two forward crossover paths each comprising a first delay line and a second filter, and two feedback crossover paths each comprising a second delay line and a third filter;

at least one first filter has a frequency response P_S of $|P_S| = \left|\frac{H_i(\phi)}{H_i(\theta)}\right|$,

at least one second filter has a frequency response F_S of $|F_S| = \left|\frac{H_c(\phi)}{H_i(\phi)}\right|$,

at least one third filter has a frequency response F_T of $|F_T| = \left|\frac{H_c(\theta)}{H_i(\theta)}\right|$,

at least one first delay line provides a delay D_S of $D_S = t(\phi) - t(F_S)$, and

at least one second delay line provides a delay D_T of $D_T = t(\theta) - t(F_T)$,

wherein θ represents an angle associated with two physical speakers, φ represents an angle associated with two virtualized speakers, H_i represents a transfer function associated with one of the listener's ears, H_c represents a transfer function associated with another of the listener's ears, $t(\varphi)$ represents an inter-time difference associated with the two virtualized speakers, $t(\theta)$ represents an inter-time difference associated with the two physical speakers, $t(F_S)$ represents a delay associated with at least one second filter, and $t(F_T)$ represents a delay associated with at least one third filter.

38. (Currently Amended) A device, comprising:

an audio source operable to provide audio information; and

an audio processor operable to receive the audio information and process the audio information to virtualize at least one speaker so that, from a listener's perspective, sounds appear to come from at least one direction where a physical speaker is not present, the audio processor being configurable to virtualize the at least one speaker at any location in a space around the listener, the audio processor comprising:

a virtualizer configured to process audio information to virtualize the at least one speaker, the virtualizer comprising:

at least one feedback crossover path configured to receive signals output from the virtualizer, to filter the received signals with a filter approximating filtering required to provide an optimal inter-time difference to virtualize the at least one speaker and to delay an output of the filter to compensate for a difference between a delay introduced by the filter and the optimal inter-time difference; and

at least one forward crossover path configured to receive, delay, and filter an output of a first filter, wherein an output of the at least one feedback crossover path and an output of the at least one forward crossover path are combined to produce at least one output signal from the virtualizer; and

a controller configured to determine a location of the at least one speaker based on a number of parameters including at least a position of at least one actual speaker and configured to cause the virtualizer to virtualize the at least one speaker at the determined location by individually altering a frequency response of one or more crossover path filters and a delay of one or more of crossover path delay lines.

39. (Currently Amended) A device comprising:

an audio source operable to provide audio information; and

an audio processor operable to receive the audio information and process the audio information to virtualize at least one speaker so that, from a listener's perspective, sounds appear to come from at least one direction where a physical speaker is not present, the audio processor being configurable to virtualize the at least one speaker at any location in a space around the listener, the audio processor comprising:

one or more first filters operable to filter one or more input signals comprising at least a portion of the audio information;

a virtualizer configured to process audio information to virtualize the at least one speaker, the virtualizer comprising:

at least one feedback crossover path configured to receive, delay, and filter signals output from the virtualizer; and

at least one forward crossover path configured to receive, delay, and filter an output of a first filter, the at least one forward crossover path including one or more forward crossover paths each operable to receive, delay, and filter an output from one of the filters, wherein an output of the at least one feedback crossover path and an output of the at least one forward crossover path are combined to produce at least one output signal from the virtualizer;

a controller configured to determine a location of the at least one speaker based on a number of parameters including at least a position of at least one actual speaker and configured to cause the virtualizer to virtualize the at least one speaker at the determined location by individually altering a frequency response of one or more crossover path filters and a delay of one or more of crossover path delay lines;

one or more first combiners operable to produce first output signals for a first physical speaker using one or more of: one or more of the input signals, one or more outputs from the first filters, and one or more outputs from the forward crossover paths;

one or more second combiners operable to produce second output signals for a second physical speaker using one or more of: one or more of the input signals, one or more outputs from the first filters, and one or more outputs from the forward crossover paths;

a first feedback crossover path operable to receive, delay, and filter the first output signals, the one or more second combiners further operable to produce the second output signals using an output from the first feedback crossover path; and

a second feedback crossover path operable to receive, delay, and filter the second output signals, the one or more first combiners further operable to produce the first output signals using an output from the second feedback crossover path.

40. (Previously Presented) A method, comprising:

receiving a first physical speaker signal;

generating first output signals for a first physical speaker; and

generating second output signals for a second physical speaker, wherein the first and second output signals are generated from the received first physical speaker signal,

wherein generating the second output signal comprises combining an output of at least one feedback crossover path and a first forward crossover signal received from a first forward crossover path, the at least one feedback crossover path operable to receive the first output signal, to filter the received first output signal with a feedback crossover path filter approximating filtering required to provide an optimal inter-time difference to virtualize the at least one speaker and to delay an output of the feedback crossover path filter to compensate for a difference between a delay introduced by the feedback crossover path filter and the optimal inter-time difference, and the first forward crossover path operable to receive a first input signal, to filter the first input signal with a first forward crossover path filter approximating filtering required to provide an optimal inter-time difference to virtualize the at least one speaker and to delay an output of the first forward crossover path filter to compensate for a difference between a delay introduced by the first forward crossover path filter and the optimal inter-time difference.

41. (Previously Presented) The method of Claim 40, wherein providing further comprises:

providing the second output signals to a first feedback crossover path operable to receive, delay, and filter the second output signals; and

providing the first output signals to a second feedback crossover path operable to receive, delay, and filter the first output signals.

42. (Previously Presented) The method of Claim 41, wherein the first and second output signals are produced using one or more first filters, one or more forward crossover paths each comprising a first delay line and a second filter, and two feedback crossover paths each comprising a second delay line and a third filter; and

individually altering a frequency response of one or more of the filters and a delay of one or more of the delay lines to change the location of one or more of the virtualized speakers.

43. (Previously Presented) The method of Claim 40, further comprising:

filtering one or more input signals to produce one or more filtered input signals;

providing one or more of the filtered input signals to one or more forward crossover paths; and

generating the first and second output signals using one or more of: one or more of the input signals, one or more of the filtered input signals, and one or more outputs from the forward crossover paths;

wherein generating the first output signals further comprises using an output from the second feedback crossover path;

wherein generating the second output signals further comprises using an output from the first feedback crossover path; and

wherein the first output signals emulate effects of a virtual speaker on one ear of a listener, the second output signals emulate effects of the virtual speaker on another ear of the listener, and each of the output signals at least partially cancels crosstalk caused by the other output signals.